UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,945	02/21/2006	Atsuki Ishida	27691.11 / Y03S017PCT-US	8307

27683 7590 12/16/2009

HAYNES AND BOONE, LLP
IP Section
2323 Victory Avenue
Suite 700
Dallas, TX 75219

EXAMINER	
NILANONT, YOUPAPORN	
ART UNIT	PAPER NUMBER
2446	

MAIL DATE	DELIVERY MODE
12/16/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/536,945	ISHIDA ET AL.	
	Examiner	Art Unit	
	YOUPAPORN NILANONT	2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *6-8 and 11-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *6-8 and 11-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims:

Claims 6-8 and 11-15 are pending in this Office Action.

Claims 6-8, 12-13 and 15 are amended.

Claims 1-5 and 9-10 are cancelled.

Response to Arguments

Applicant's arguments, see page 8 lines 3-11, filed 09-02-2009, with respect to the rejection(s) of claim(s) 6 under 35 USC 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Breh et al. (US 2004/0054789).

The rest of applicant's arguments have been fully considered but they are not persuasive. The reasons set forth below.

Applicant's invention as claimed:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites "capsulating/decapsulating" which fails to particularly point out whether the claim requires the packet processing device to perform both capsulation and decapsulation or requires only the alternative of capsulating or decapsulating. For the purposes of examination, this limitation has been construed in the alternative only.

Claim 15 recites "and/or" which fails to particularly point out whether the claim affirmatively require both client device and the relay device or they are to be interpreted in the alternative. For the purposes of examination, this limitation has been construed in the alternative only.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 15 is rejected under 35 U.S.C. 102(e) as being anticipated by Saito et al. (US 6523696).

Regarding claim 15, (Currently amended) Saito discloses a server used on an Internet connection system (figure 7 "1st AV Connection Device 204") which comprises a client device located within a private TCP/IP based network, (figure 7, "Digital VTR 209" or "Home Automation Network 212" etc…) a relay device installed in said client device

(figure 7 "2nd AV Connection Device 205", column 31 lines 32-45 "functions to be carried out by the AV connection device…maybe provided in the PC"), and the server, the server being connected to Internet and also to the client device through the Internet and the relay device (figure 7 "1st AV Connection Device 204", "Public Network 202"), said client device being a device that is communicable with the relay device but cannot independently connect to the Internet (figure 7 "DVD Player208" or "Digital VTR 209" etc…),

said server on the Internet comprising:

a tunneling establishing section for establishing a TCP/IP session through a tunneling connection with the relay device; (Saito, figure 8 "IP Processing Function 224", figure 49)

a client device management device for managing the client device in association with the relay device or the tunneling connection; and (figure 44 "NAT Processing Unit 2206", column 42 lines 62-67)

a routing device for routing a connection, from the Internet to the client device, through the tunneling connection to the relay device which is connected to the client device, based on management at the client device management device; and (figure 44 "Internet I/F 2205 and "1394 I/F 2202", figure 47)

a state information obtaining section for obtaining at least one of an operation state, a usage state and location information of the client device and/or the relay device (Saito, figures 18-19, column 27 lines 20-36 "to obtain location information and the attribute information").

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 6, 8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (US 6523696) in view of Breh et al. (US 2004/0054789).

Regarding claim 6, (Currently amended) Saito discloses a network-enabled home appliance that is located within a private network (figure 7 “AV Connection Device 205”, "PC 210" or “printer 211” etc…) and remotely controllable from a terminal connected to an Internet (Saito, figure 7 "PC 206") via a server located on the Internet, wherein said server is connected to the network-enabled home appliance via the Internet, ("AV Connection Device 204", “Public Network 202”, column 3 lines 31-32 “control a node on the first network from a node on the second network”, column 27 lines 20-28, column 28 lines 19-31 shows that appliance in the second home network is controllable from terminal in the first home network), said network-enabled home appliance comprising:

a control section configured to receive a packet from said server located on the Internet, the packet including a command, for controlling the network-enabled home appliance (Saito, figure 8, column 20 lines 37-61),

a server address storage section for storing a global address of said server located on the Internet (Saito, figure 8 “1394/IP Service Location Processing Function 226”, column 5 lines 54-67 “contain an address”, “acting on an object referred through the hyperlink”);

a tunneling establishing section for establishing a tunneling connection between the network-enabled home appliance and the server based on the global address of the server (Saito, figure 8 “IP Processing Function 224”, figure 49); and

a packet processing device for capsulating/decapsulating packets, the packets communicated with the server through the tunneling connection (Saito, figure 8 “1394/IP Command Conversion Function 229”), and routing the packets to the control section or the server (Saito, figure 8 “1394 I/F 221”, “Datalink Switch 222” and “Public Network I/F 223", column 19 lines 50-67, figures 48-49).

Saito may not explicitly disclose:

that the server has a conversion unit to convert the command into the target appliance's format before sending to the target appliance.

Breh discloses:

server (figure 2 “Pervasive Home Network Portal 202”) has a command conversion unit (figure 2 “Device Presentation Handler 236”) for converting a command to a predetermined format that is specific to the network-enabled home appliance ([0067] “convert in bound requests…into a device command that is dependent on the respective device”), and

command being in said predetermined format specific to the network-enabled home appliance when received from said server (figures 2 and 6, [0076] "portal sends a process request containing the device command to the appliance").

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have outsourced the command conversion function from the home network to the central portal server as taught by Breh, in order to eliminate the need to set up complicate server at user's home for user's convenience.

Regarding claim 8, (Currently amended) Saito discloses a server used on an Internet connection system (figure 7 "1st AV Connection Device 204")

[system] which comprises a client device located within a private TCP/IP based network (figure 7, "Digital VTR 209" or "Home Automation Network 212" etc…),

a relay device installed in said client device (figure 7 "2nd AV Connection Device 205", column 31 lines 32-45 "functions to be carried out by the AV connection device…maybe provided in the PC"), and the server, the server being connected to Internet and also to the client device through the Internet and the relay device (figure 7 "1st AV Connection Device 204", "Public Network 202"), said client device being a device that is communicable with the relay device but cannot independently connect to the Internet, (figure 7 "DVD Player208" or "Digital VTR 209")

said server on the Internet comprising:

a tunneling establishing section for establishing a TCP/IP session through a tunneling connection with the relay device; (Saito, figure 8 "IP Processing Function 224", figure 49)

a client device management device for managing the client device in association with the relay device or the tunneling connection; (figure 44 "NAT Processing Unit 2206", column 42 lines 62-67)

a routing device for routing a connection, from the Internet to the client device, through the tunneling connection to the relay device which is connected to the client device, based on management at the client device management device; (figure 44 "Internet I/F 2205 and "1394 I/F 2202", figure 47)

a model identification section for determining if the client device is of a predetermined model or if the relay device is of a predetermined model. (figure 8, "1394/IP Service Location Processing Function 226" and column 20 lines 25-28 "recognizes what terminal/service exists", column 21 lines 5-10, figure 18 "service request" and "attribute request")

Saito may not explicitly disclose:

a command conversion section on the server that converts command before sending to the client device in the receiving home network.

Breh discloses:

a command conversion section for converting a command to be sent to the client device to a command in a predetermined format specific to the predetermined model for controlling the client device, if the model identification

section determines that the client device or the relay device is of the predetermined model (figure 2 “Pervasive Home Network Portal 202”, “Device Presentation Handler 236”, [0067] “convert in bound requests…into a device command that is dependent on the respective device”).

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have outsourced the command conversion function from the home network to the central portal server as taught by Breh, in order to eliminate the need to set up complicate server at user's home for user's convenience.

Regarding claim 11, (Previously presented) Saito in view of Breh discloses the server of Claim 8, further comprising:

a communication session disconnection section for disconnecting communication sessions or limiting packet transmissions if the model identification section determines that the client device or the relay device is not of the predetermined model (Saito, column 20 lines 25-33 discloses that the service location processing function will not recognize a device if the registrations fails).

Regarding claim 12, (Currently amended) Saito discloses a server used on an Internet connection system (figure 7 “1st AV Connection Device 204”) which comprises a client device located within a private TCP/IP based network (figure 7, "Digital VTR 209" or “Home Automation Network 212” etc…), a relay device installed in said client device (figure 7 “2nd AV Connection Device 205”, column 31 lines 32-45 “functions to be carried out by the AV connection device…maybe provided in the PC”), and the server, the

server being connected to Internet and also to the client device through the Internet and the relay device (figure 7 "1st AV Connection Device 204", "Public Network 202"),

said server on the Internet comprising:

a tunneling establishing section for establishing a TCP/IP session through a tunneling connection with the relay device (Saito, figure 8 "IP Processing Function 224", figure 49);

a client device management device for managing the client device in association with the relay device or the tunneling connection; (figure 44 "NAT Processing Unit 2206", column 42 lines 62-67)

a routing device for routing a connection, from the Internet to the client device, through the tunneling connection to the relay device which is connected to the client device, based on management at the client device management device; (figure 44 "Internet I/F 2205 and "1394 I/F 2202", figure 47)

wherein the client device includes peripheral equipment, which is communicable with the relay device but cannot independently connect to the Internet, (Saito, figure 7 "DVD Player 208", Digital VTR 209", "Air Conditioner 213" or "Microwave Oven 214", non-IP terminals thus imply cannot independently connect to the Internet)

Saito may not explicitly disclose that said server further comprising: a command conversion section on the server that converts command before sending to the client device in the receiving home network.

Breh discloses:

a command conversion section for converting a command to be sent to said peripheral equipment to a command in a predetermined format for controlling said peripheral equipment. (figure 2 “Pervasive Home Network Portal 202”, “Device Presentation Handler 236”, [0067] “convert in bound requests…into a device command that is dependent on the respective device”)

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have outsourced the command conversion function from the home network to the central portal server as taught by Breh, in order to eliminate the need to set up complicate server at user's home for user's convenience.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (US 6523696) in view of Breh et al. (US 2004/0054789) as applied to claim 6 above, and further in view of Tsuchiya et al. (US 6118784).

Regarding claim 7, (Currently amended) Saito in view of Breh discloses the network-enabled home appliance of Claim 6, but does not explicitly discloses of a use of intermediate server that provides the global address of the server located on the Internet to accessing appliance.

Tsuchiya discloses:

a storage containing DNS server’s address, DNS server which acts as an intermediate server that provides a global address that can be used to access the desired server located on the Internet (Tsuchiya, figure 1 “DNS Substituting Means 13” and column 5 lines 60-65, figure 1 “Ipv4 Address Capturing Means 14”).

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have used a DNS server to obtain the actual IP address of the destination device as taught by Tsuchiya in order to efficiently update any destination IP address for any device in the network as it was commonly known in the art.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. (US 6523696) in view of Sekiguchi (US 6957257).

Regarding claim 13, (Currently amended) Saito discloses a server used on an Internet connection system (figure 7 "1st AV Connection Device 204") which comprises a client device located within a private TCP/IP based network (figure 7, "Digital VTR 209" or "Home Automation Network 212" etc…), a relay device installed in said client device (figure 7 "2nd AV Connection Device 205", column 31 lines 32-45 "functions to be carried out by the AV connection device…maybe provided in the PC"), and the server, the server being connected to Internet and also to the client device through the Internet and the relay device (figure 7 "1st AV Connection Device 204", "Public Network 202"), said client device being a device that is communicable with the relay device but cannot independently connect to the Internet, said server on the Internet (figure 7 "DVD Player208" or "Digital VTR 209") comprising:

a tunneling establishing section for establishing a TCP/IP session by means of a tunneling connection with the relay device; (Saito, figure 8 "IP Processing Function 224", figure 49)

a client device management device for managing the client device in association with the relay device or the tunneling connection; (figure 44 "NAT Processing Unit 2206", column 42 lines 62-67)

a routing device for routing a connection, from the Internet to the client device, through the tunneling connection to the relay device which is connected to the client device, based on management at the client device management device; (figure 44 "Internet I/F 2205 and "1394 I/F 2202", figure 47)

Saito may not explicitly teach a section for determining if a network type is a predetermined type. However, Sekiguchi discloses a processing section that observes the IP address, thus determines if the incoming packet comes from Ipv4 network (Sekiguchi, figure 2 "IP Address Processing Section 23" and column 3 lines 54-55).

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have incorporated Sekiguchi's function of determining the network type of incoming packets in order to be able to adapt to the Ipv6 network that may be used as one of Saito's home network and still accurately forward information between different types of network.

Regarding claim 14, (Previously presented) Saito and Sekiguchi discloses the server of Claim 13, further comprising:

a communication session disconnection section for disconnecting communication sessions or limiting packet transmissions if a first network environment connected to the client device or the relay device is determined not of the predetermined type. (Sekiguchi, figure 2 "IP Address Processing Section 23" and figure 5 "St54" and "St55")

It would have been obvious to the person having ordinary skill in the art, at the time the invention was made, to have included Sekiguchi's function in Saito's IP processing function unit in order to prevent error caused by communication between unidentifiable types of networks.

REMARKS

Applicant has presented amendments to the independent claims and a dependent claim.

The applicant argues:

1. That the 2nd AV connection device 205 is not the server located on the Internet for the remote terminal to connect to in order to control appliances in the home network.

2. That the control command is converted after it is received at the home network containing controlled appliances.

3. That the remote device does not use a global address of a server on the Internet.

In response, the examiner respectfully submits:

1. The 2nd AV connection device 205 is not referenced to as the server on the Internet. It is interpreted and cited as the device in the home network on the command receiving end. However, the 1st AV connection device 204 is cited as the server which connect to the Internet, relay device, and appliance, which is on the controlling end of the system. Therefore, the rejection regarding "a server located on the Internet" is maintained since the 1st AV device 204 reads on such limitation.

2. The examiner addresses this limitation with a new reference under new ground of rejection.

3. Since the command is communicated from 1st AV Connection device in the 1st Home Network to the appliances in the 2nd Home Network, the examiner maintains the rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Kim et al. discloses method and system for controlling home applicances through central web portal server.

b. Venkatraman et al. discloses controlling devices through device's embedded web page.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUPAPORN NILANONT whose telephone number is (571) 270-5655. The examiner can normally be reached on Monday through Thursday and alternate Friday at 8:30 AM - 6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey C. Pwu can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Y. N./
Examiner, Art Unit 2446

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2446